

## CLAIMS

### What Is Claimed Is:

1. A support structure for suspending electrical cable in the plenum above a suspend ceiling attached to an upper support, the support structure for electronic cable comprising:  
a unitary structure having a drop segment extending downward from a stabilizing segment, the stabilizing segment oriented to lay against the upper support, the stabilizer segment formed into a loop at its end; and  
a coupling mechanism for attaching the stabilizing segment to the upper support by the loop in the stabilizing segment.
2. The structure of claim 1 wherein at least two points positioned on the loop are separated by a distance of at least X inches where X is one of 0.75, 0.80, 0.85, and 0.90.
3. The structure of claim 1 wherein the base has a length of at least L inches where L is one of 1.5 and 1.75.
4. The structure of claim 1 wherein the unitary structure is formed from a rod having a diameter of at least 0.24 inches.
5. The structure of claim 1 wherein the coupling mechanism comprises  
a fastener assembly having a portion projecting outward from the loop;  
and a bushing adapted to couple the fastener assembly to the loop, the bushing comprising a flange positioned opposite the projection portion of the fastener assembly.
6. The structure of claim 5 wherein the flange is compressible.

7. The structure of claim 6 wherein:  
the support member comprises a fastening loop having an inner diameter;  
the fastener assembly passes through the fastening loop and projects outward from a first side of the support member; and  
the compressible flange has an outer diameter greater than the inner diameter of the fastening loop and is positioned on a second side of the support member that is opposite of the first side.
8. A cable support structure comprising:  
a unitary support member;  
a fastener assembly having a portion projecting outward from the support member;  
and a coupling assembly adapted to couple the fastener assembly to the support member, the coupling assembly comprising a flange positioned opposite the projection portion of the fastener assembly.
9. The structure of claim 8 wherein the support member is formed by bending an elongated rod to form a fastening loop.
10. The structure of claim 9 wherein the fastening loop defines a plane, and the support member comprises a second bend that causes a drop segment to project outward from the plane.
11. The structure of claim 10 wherein the support member comprises a stabilizing segment between the fastening loop and second bend wherein the stabilizing segment is substantially coplanar with the plane defined by the fastening loop.
12. The structure of claim 11 wherein the drop segment is substantially perpendicular to the plane.

13. The structure of claim 12 wherein the stabilizing loop has an inner diameter of at least 0.26 inches, the distance between a point on the loop and a point on the stabilizing segment is at least 1.5 inches, the drop segment is at least six inches long, and the support member is formed from a mild steel rod having a diameter of at least 0.2 inches.
14. The structure of claim 13 wherein the fastener assembly comprises a wood nail, wood screw, metal screw, concrete nail, or concrete anchor.
15. The structure of claim 8 wherein the flange is compressible.
16. The structure of claim 15 wherein:  
the support member comprises a fastening loop having an inner diameter;  
the fastener assembly passes through the fastening loop and projects outward from a first side of the support member; and  
the compressible flange has an outer diameter greater than the inner diameter of the fastening loop and is positioned on a second side of the support member that is opposite of the first side.
17. The structure of claim 16 wherein the fastener assembly project outward from the first side of the support member by at least 1/4 inch, and either does not project outward from the second side, or extends outward from the second side by less than 1/4 inch.
18. The structure of claim 16 wherein the fastener assembly project outward from the first side of the support member by at least 1/4 inch, and does not extend outward from the second side beyond the compressible flange.
19. The structure of claim 18 wherein the coupling assembly comprises a body having first end, a second end, a through hole passing through the body from the first end to the second end, and the flange is positioned at or near the first end.
20. The structure of claim 19 wherein the flange is substantially coaxial with the through hole.

21. The structure of claim 20 wherein the through hole has a diameter that is less than or equal to the outer diameter of a fastener member of the fastener assembly.
22. The structure of claim 21 wherein the body has an external diameter less than the inner diameter of the fastening loop.
23. The structure of claim 21 wherein the body has an external diameter greater or equal to the inner diameter of the fastening loop.
24. The structure of claim 23 wherein the body and flange are each part of a single unitary member.
25. The structure of claim 24 wherein the member is a nylon bushing.
26. The structure of claim 25 wherein the fastener assembly comprises a wood nail, wood screw, metal screw, concrete nail, or concrete anchor.
27. A method of forming the cable support structure of claim 1, comprising:
  - forming unitary support member by bending a steel rod to form a fastening loop, an adjacent stabilizing segment, and a drop segment separated from the stabilizing segment by a bend in the rod;
  - providing a fastener assembly comprising an elongated fastener and a washer;
  - providing a coupling member having a flange and a through hole;
  - coupling the fastener assembly to the support member by causing an end of the elongated fastener to pass through at least a portion of the fastening loop and forcing the coupling member and fastener together such that the elongated fastener projects outward from a first side of the fastening loop, and the flange is positioned on a second side of the fastening loop opposite the first side.

28. The method of claim 27 wherein the fastener and coupling member are provided together, and coupling the fastener assembly to the support member comprises first separating the fastener and coupling member.
29. A fastener assembly comprising a fastener having a head, and a bushing having a flange, wherein the fastener and bushing are removeably coupled together to form an elongated assembly wherein the head and bushing are positioned at or near opposite ends of the assembly.